

patent pmCS HAS align version 2

FIG. 1

	1					50
PmCS	MNTLSQAIKA	YNSNDYELAL	KLFEKSAETY	GRKIVEFQII	KCKEKLSTNS	
PmHAS	MNTLSQAIKA	YNSNDYQLAL	KLFEKSAEiY	GRKIVEFQIT	KCKEKLsAHP	
Consensus	MNTLSQAIKA	YNSNDY#LAL	KLFEKSAEiY	GRKIVEFQIi	KCKEKLsAnp	
	51					100
PmCS	YVS.....	EDKKNsVCDS	SLDIATQLLL	SNVKKLTLS	SEKNSLKNKW	
PmHAS	SVNSAHLsVN	KEEKVNVCDS	PLDIATQLLL	SNVKKLVLS	SEKNTLKNKW	
Consensus	sVn.....	e#eKnnVCDS	pLDIATQLLL	SNVKKLTLS#	SEKNSLKNKW	
	101					150
PmCS	KSITGKKSEN	AEIRKVELVP	KDFPKDLVLA	PLPDHVNDFT	WYKNRKKSLG	
PmHAS	KLLTEKKSEN	AEVRAVALVP	KDFPKDLVLA	PLPDHVNDFT	WYKKRKKRLG	
Consensus	KLiTeKKSEN	AE!RaVaLVP	KDFPKDLVLA	PLPDHVNDFT	WYKnRKKrLG	
	151					200
PmCS	IKPVNKNIGL	SIIIPTFNRS	RILDITLACL	VNQKTnYPFE	VVVADDGSKE	
PmHAS	IKPEHQHVGL	SIIVTTFNRP	AILSITLACL	VNQKThYPFE	VIVTDDGSQE	
Consensus	IKPenqn!GL	SII!pTFNRP	aILdITLACL	VNQKTnYPFE	V!VaDDGSqe	
	201					250
PmCS	NLLTIVQKYE	QKLDIKYVRQ	KDYGyQLCAV	RNLGLRTAKY	DFVSILDCDM	
PmHAS	DLSPiIRQYE	NKLDIRYVRQ	KDNGFQASAA	RNMGLRLAKY	DFIGLLDCDM	
Consensus	#LlPi!rqYE	#KLDiRYVRQ	KDnG%QaCAa	RN\$GLRLAKY	DF!giLDCDM	
	251					300
PmCS	APQQLWVHSY	LTELLEDNDI	VLIGPRKYVD	THNITAEQFL	NDPYLIESLP	
PmHAS	APNPLWVHSY	VAELLEDDDL	TIIGPRKYID	TQHIDPKDFL	NNASLLES LP	
Consensus	AP#qLWVHSY	laELLEDD#Di	tiIGPRKY!D	TqnIdae#FL	N#asLiESLP	
	301					350
PmCS	ETATNNNPSI	TSKGNISLDW	RLEHFKKTDN	LRLCDSPFRY	FSCGNVAFSK	
PmHAS	EVKTNNsVAA	KGEGTVSLDW	RLEQFEKTEN	LRLSDSPFRF	FAAGNVAFAK	
Consensus	EtaTNNnpaa	kgeGn!SLDW	RLEqFeKT#N	LRLcDSPFR%	FaaGNVAFak	
	351					400
PmCS	EWLNVGWFD	EEFNHWGGED	VEFGYRLFAK	GCFFRVIDGG	MAYHQEPPGK	
PmHAS	KWLNKSGFFD	EEFNHWGGED	VEFGYRLFRY	GSFFKTIDGI	MAYHQEPPGK	
Consensus	eWLNKSGfFD	EEFNHWGGED	VEFGYRLFak	GcFFRtIDGg	MAYHQEPPGK	
	401					450
PmCS	ENETDREAGK	SITLKIVKEK	VPYIYRKLLP	IEDSHIHRIp	LVSIIYIPAYN	
PmHAS	ENETDREAGK	NITLDIMREK	VPYIYRKLLP	IEDSHINRVP	LVSIIYIPAYN	
Consensus	ENETDREAGK	nITLdImrEK	VPYIYRKLLP	IEDSHInr!P	LVSIIYIPAYN	
	451					500
PmCS	CANYIQRCDV	SALNQTVVDL	EVCICNDGST	DNTLEVINKL	YGNNPRVRIM	
PmHAS	CANYIQRCDV	SALNQTVVDL	EVCICNDGST	DNTLEVINKL	YGNNPRVRIM	
Consensus	CANYIQRCDV	SALNQTVVDL	EVCICNDGST	DNTLEVINKL	YGNNPRVRIM	
	501					550
PmCS	SKPNGGIASA	SNAAVSFAKG	YYIGQLDSDD	YLEPDAVELC	LKEFLKDKTL	
PmHAS	SKPNGGIASA	SNAAVSFAKG	YYIGQLDSDD	YLEPDAVELC	LKEFLKDKTL	
Consensus	SKPNGGIASA	SNAAVSFAKG	YYIGQLDSDD	YLEPDAVELC	LKEFLKDKTL	
	551					600
PmCS	ACVYTTNRNV	NPDGSLIANG	YNWPEFSREK	LTTAMIAHHF	RMFTIRAWHL	
PmHAS	ACVYTTNRNV	NPDGSLIANG	YNWPEFSREK	LTTAMIAHHF	RMFTIRAWHL	
Consensus	ACVYTTNRNV	NPDGSLIANG	YNWPEFSREK	LTTAMIAHHF	RMFTIRAWHL	

Fig. 1 cont'd.

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	601					650
PmCS	TDGFNENIEN	AVDYDMFLKL	SEVGKFKHLN	KICYNRVLHG	DNTSIKKLGI	
PmHAS	TDGFNEKIEN	AVDYDMFLKL	SEVGKFKHLN	KICYNRVLHG	DNTSIKKLGI	
Consensus	TDGFNEnIEN	AVDYDMFLKL	SEVGKFKHLN	KICYNRVLHG	DNTSIKKLGI	
	651					700
PmCS	QKKNHFVVVN	QSLNRQGINY	YNYDKFDDLD	ESRKYIFNKT	AEYQEEMDIL	
PmHAS	QKKNHFVVVN	QSLNRQGITY	YNYDEFDDLD	ESRKYIFNKT	AEYQEEIDIL	
Consensus	QKKNHFVVVN	QSLNRQGIY	YNYDeFDDLD	ESRKYIFNKT	AEYQEEiDIL	
	701					750
PmCS	KDLKLIQNKD	AKIAVSIFYP	NTLNGLVKKL	NNIEYNKNI	FVIILHVDKN	
PmHAS	KDIKIIQNKD	AKIAVSIFYP	NTLNGLVKKL	NNIEYNKNI	FVIVLHVDKN	
Consensus	KDiKiIQNKD	AKIAVSIFYP	NTLNGLVKKL	NNIEYNKNI	FVI!LHVDKN	
	751					800
PmCS	HLTPDIKKEI	LAFYHKHQVN	ILLNNDISYY	TSNRLIKTEA	HLSNINKLSQ	
PmHAS	HLTPDIKKEI	LAFYHKHQVN	ILLNNDISYY	TSNRLIKTEA	HLSNINKLSQ	
Consensus	HLTPDIKKEI	LAFYHKHQVN	ILLNNDISYY	TSNRLIKTEA	HLSNINKLSQ	
	801					850
PmCS	LNLNCEYIIF	DNHDSL FVKN	DSYAYMKKYD	VGMNFSALTH	DWIEKINAHF	
PmHAS	LNLNCEYIIF	DNHDSL FVKN	DSYAYMKKYD	VGMNFSALTH	DWIEKINAHF	
Consensus	LNLNCEYIIF	DNHDSL FVKN	DSYAYMKKYD	VGMNFSALTH	DWIEKINAHF	
	851					900
PmCS	PFKKLIKTYF	NDNDLRSMNV	KGASQGMFMK	YALPHELLTI	IKEVITSCQS	
PmHAS	PFKKLIKTYF	NDNDLKSMNV	KGASQGMFMT	YALAHLLTI	IKEVITSCQS	
Consensus	PFKKLIKTYF	NDNDLrSMNV	KGASQGMFMk	YALaHELLTI	IKEVITSCQS	
	901					950
PmCS	IDSVPEYNTE	DIWFQFALLI	LEKKTGHVFN	KTSTLTYPW	ERKLQWTNEQ	
PmHAS	IDSVPEYNTE	DIWFQFALLI	LEKKTGHVFN	KTSTLTYPW	ERKLQWTNEQ	
Consensus	IDSVPEYNTE	DIWFQFALLI	LEKKTGHVFN	KTSTLTYPW	ERKLQWTNEQ	
	951		972			
PmCS	IQSAKKGENI	PVNKFIINSI	TL			
PmHAS	IESAKRGENI	PVNKFIINSI	TL			
Consensus	I#SAKrgENI	PVNKFIINSI	TL			

Fig3

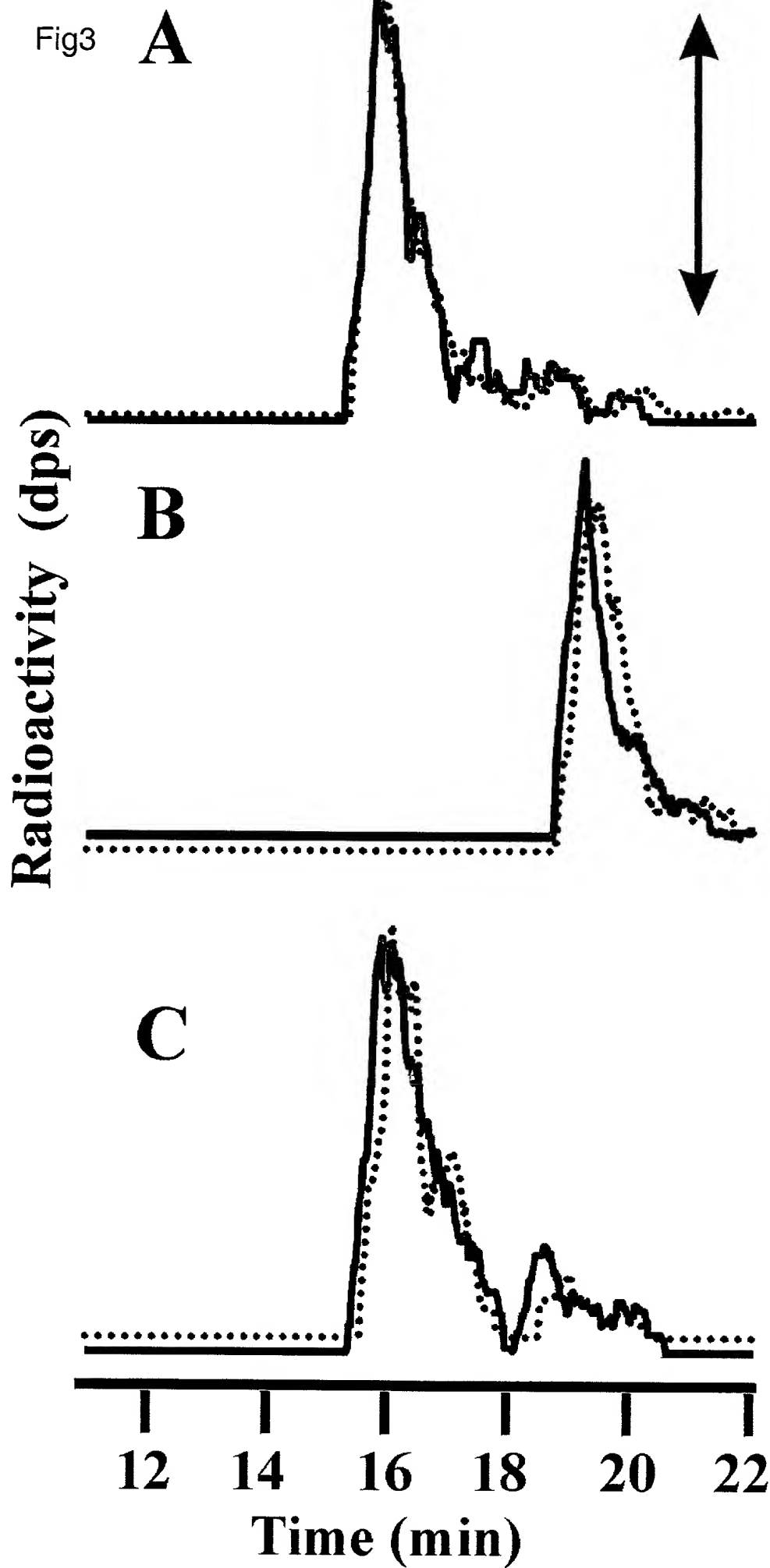
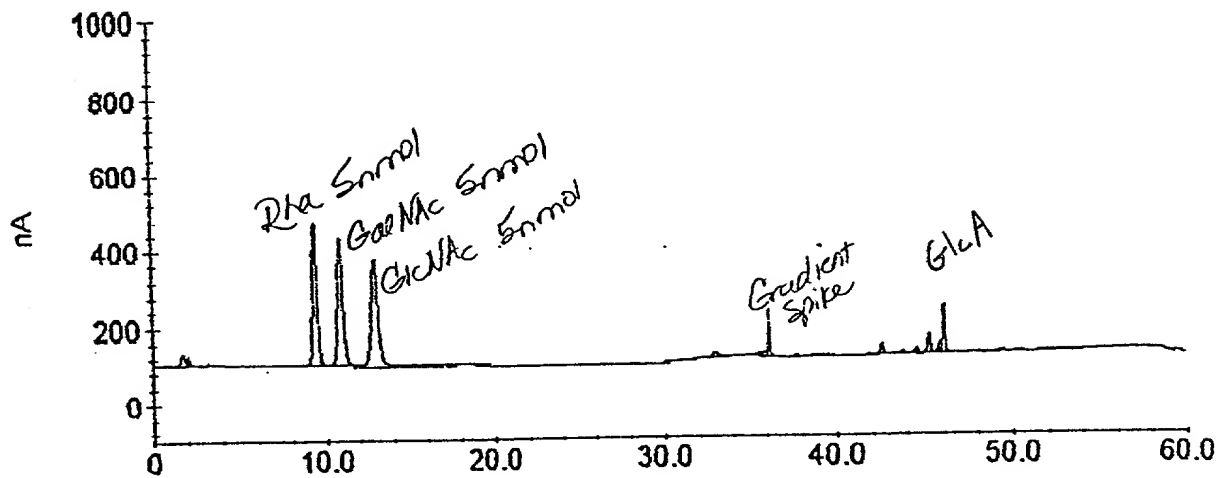


Fig 4.

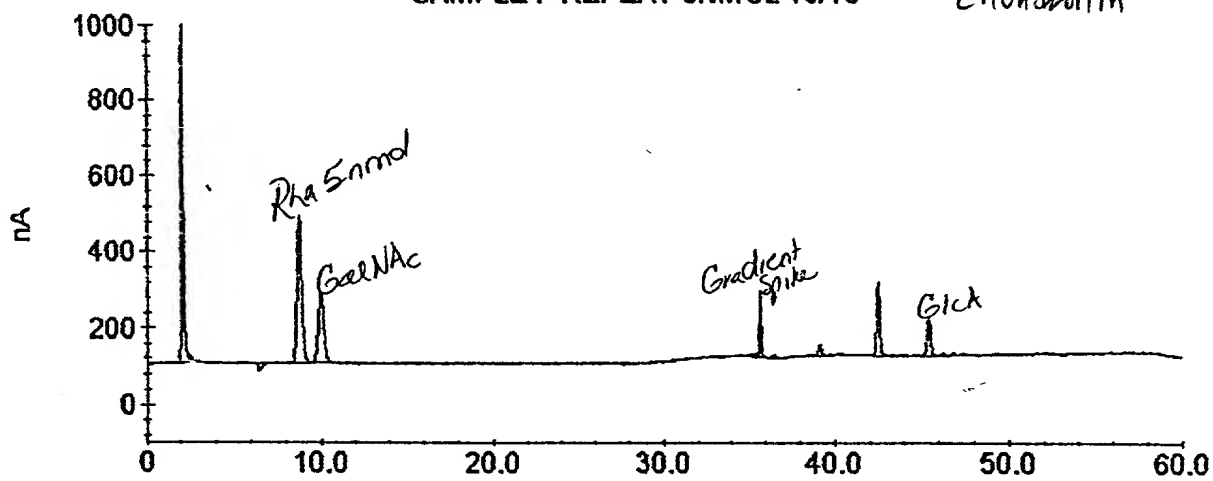
DEANGELIS STD. 5NMOL 10/15/00

Standard



SAMPLE F REPEAT 5NMOL 10/15

Pasteurella  
Chondroitin



# HA Product Size (5 min assay)

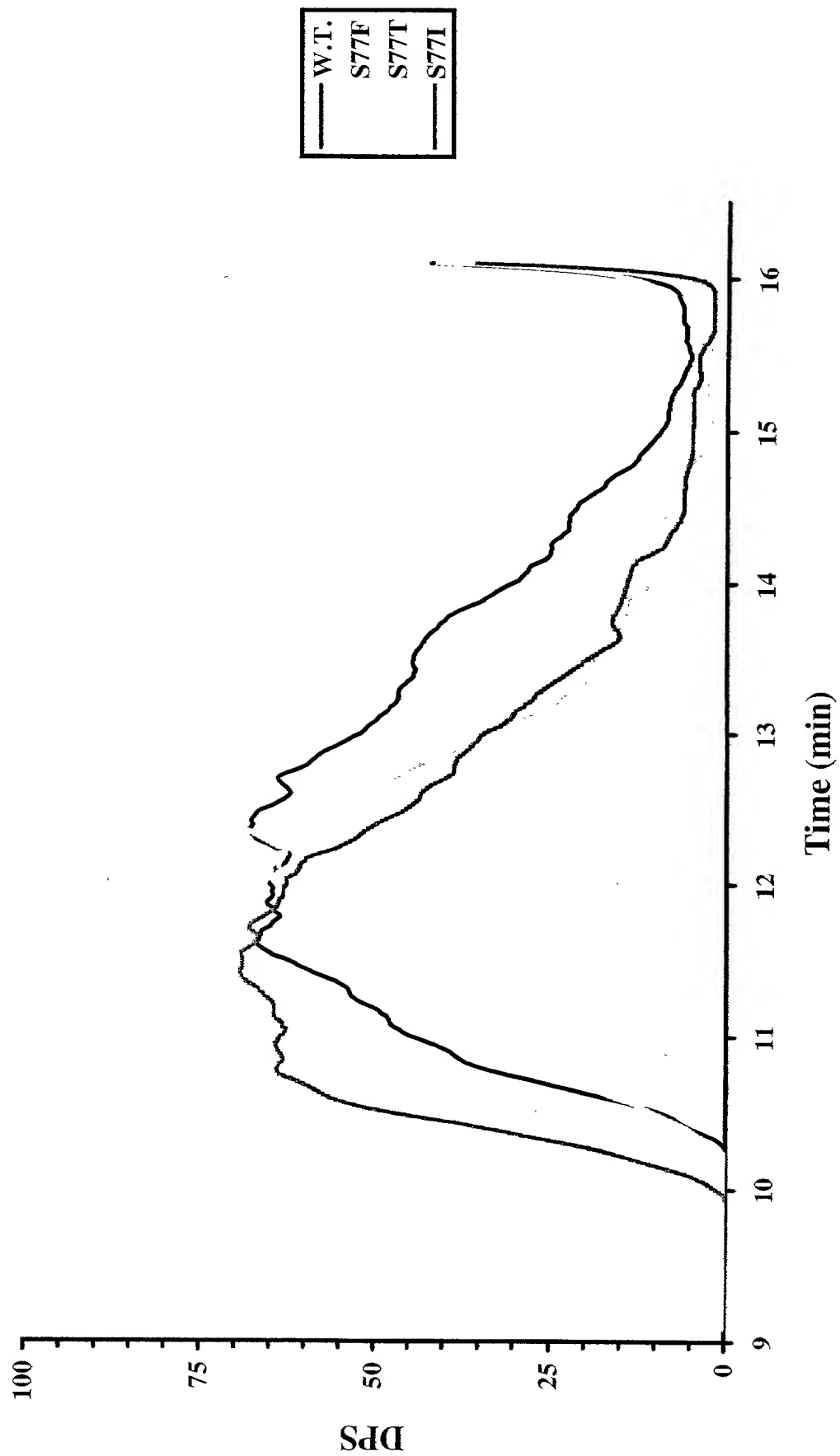
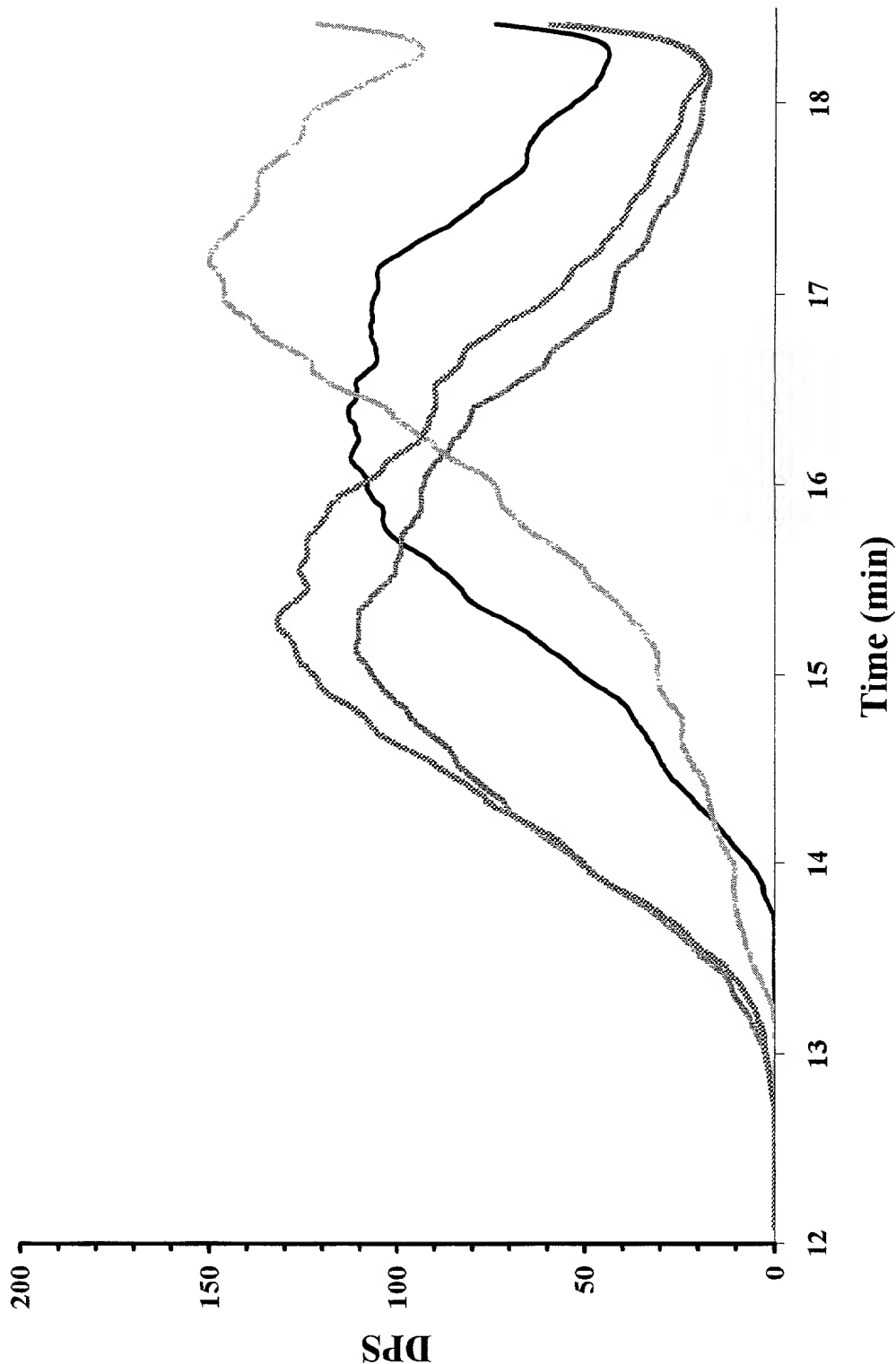


Fig. 6

Time (min) 12 13 14 15 16 17 18

# HA Product Size (30 min assay)



— W.T.  
--- S77F  
... S77T  
- . S77I

Fig. 7

# NMR of Type F Polymer

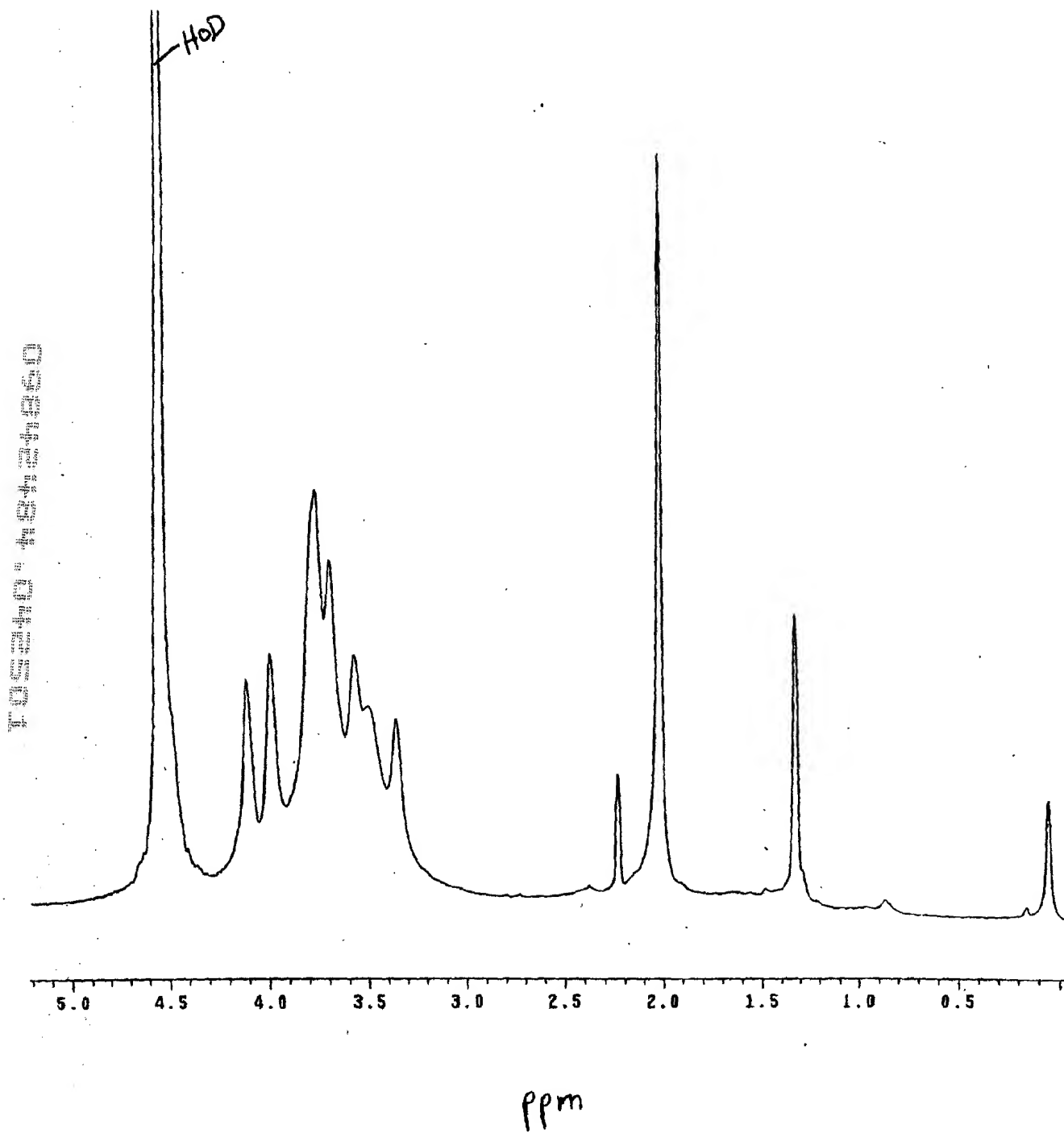


Fig. 8



APC case treatment

APC case treatment

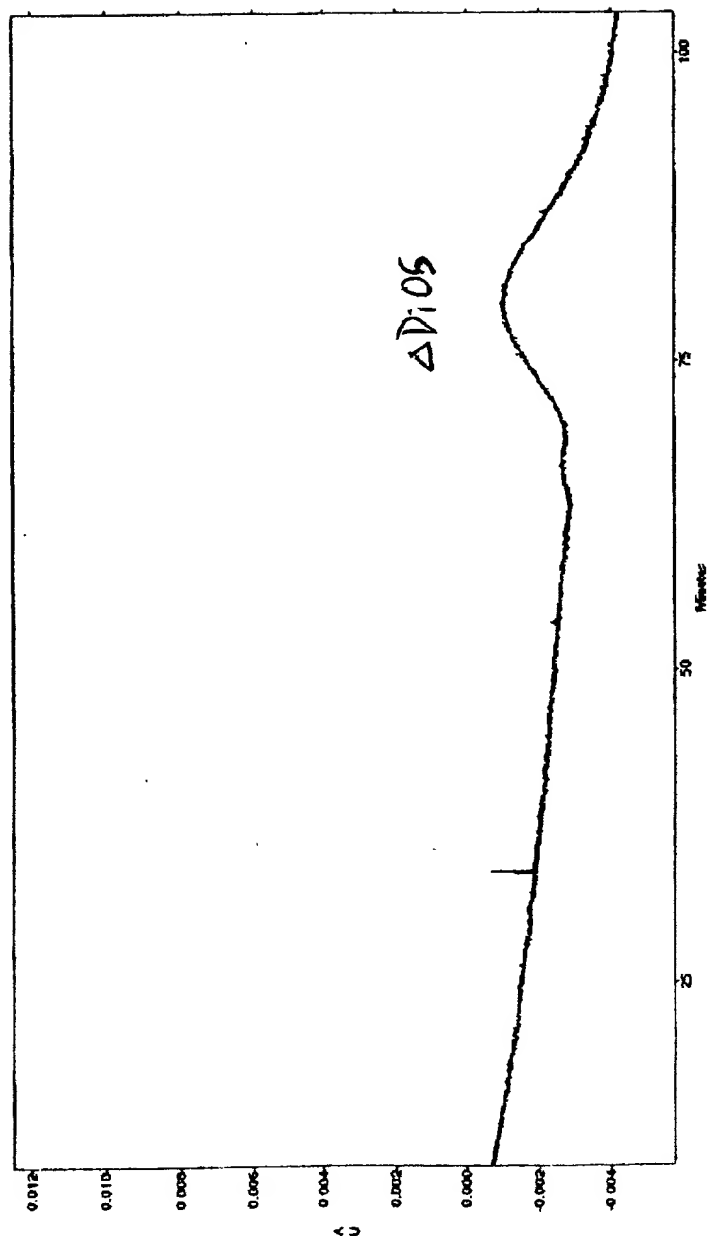


Fig. 9

T. C. Case and J. C. Case

ACase treatment

~~ACase~~

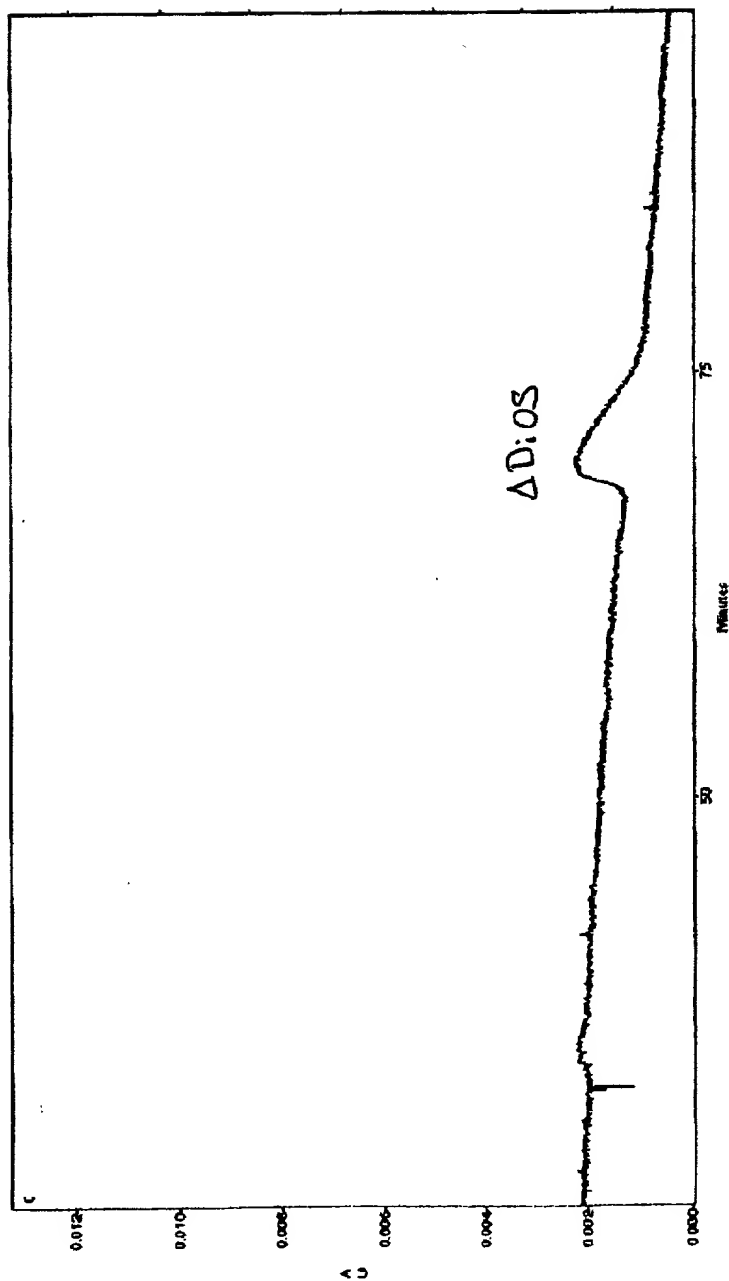


Fig. 10